Opportunities in the Chinese Telecom Market

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Summary

The introduction of competition in the telecommunications service market has dramatically changed the state of play in China. The China Telecom monopoly was broken up and China now has six large national telecom service providers instead of only one. Competition has helped to drive down the cost of telecommunication service and has changed the interaction between telecom service providers and their customers. China now has the world's largest fixed-line telecom network and mobile communications network. Still, with such a vast population, the number of telephone subscribers increases daily. In the past five years, about 100 million new telephone users were added to the already large subscriber base.

Table – 1 Growth of telephone/internet subscribers 2000-2005 (in millions)

Type of users	2000	2001	2002	2003	2004	July 2005
Mobile	84.5	145	206	268	335	368
Fixed line	145	180	214	263	312	340
Internet	9	36	49.7	54	94	103
PHS	N/A	N/A	N/A	N/A	65	81

Source: annual statistical reports released by the Ministry of Information Industry

China's accession to the World Trade Organization (WTO) in 2005 has opened opportunities for international companies to participate in the development of China's telecom service industry. With this report, we intend to provide references and consultation to U.S. firms by providing an overview of China's telecom service market and its development trends, by reviewing the practices of Chinese telecom service providers, and analyzing the regulatory environment and market access issues.

As the incumbent Chinese telecom carriers have built up high-quality networks with broad coverage, the challenges in front of them is how to put their existing infrastructure into best use to generate more revenues and drive down operational costs in order to remain competitive in the market. The U.S. Commercial Service Beijing believes that U.S. firms have more opportunities in value-added telecom services rather than basic services and management expertise to help the Chinese telecom operators achieve better productivity.

Market Overview

When discussing China's telecom service market, there is one company, China United Telecommunications Corporation (China Unicom), which should never be forgotten. The establishment of China Unicom in August 1994 represented a significant shift within the Chinese telecommunications structure. It signaled the initial introduction of competition in the telecom service market in China. The growth of China Unicom over the past 11 years reflects the slow, complicated and sometimes painful experience of China's efforts to reform the telecom service industry. The Chinese government took a series of measures to restructure the industry just prior and subsequent to the formation of China Unicom: the separation of telecommunications and postal services in 1997; the establishment of the Ministry of Information Industry (MII) in 1998 by merging the old Ministry of Post and Telecommunications (MPT) and the Ministry of Electronics Industry (MEI); the first split-up of the monopolist China Telecom into four parts in 1999 (the New China Telecom, China Mobile, China Satellite and the Guoxin Paging company, which was later merged into China Unicom); the second split-up of the New China Telecom into two (China Telecom and China Netcom); the establishment of China Railcom in 2000 and later putting it (by the name of China Tietong) under the direct control of the State-owned Asset Supervision and Administrative Commission (SASAC) in 2004. Now, as China considers issuing the 3rd generation mobile communications service (3G) licenses, another round of industry restructuring is under discussion.

China practices a licensing system in the telecom service industry. At present, there are six licensed basic telecom service providers and 13,823 value-added service (VAS) providers as of the end of 2004.

Basic Telecom Service Providers

Among the six national basic telecom service providers, China Telecom, China Netcom and China Tietong are fixed-line service providers, China Mobile and China Unicom are licensed mobile communications service providers and China Satellite is the only company providing satellite-based services. China Telecom, China Netcom, China Mobile and China Unicom are publicly traded companies while China Tietong and China Satellite remain as large Chinese state-owned enterprises. For a detailed description of each of the six operators, please review the report titled "Profiles of the Six Basic Telecom Service Operators in China" published September 28, 2005 by Jianhong Wang on our website: www.buyusa.gov/china/en.

VAS Providers

China classifies VAS companies into two categories: 1) national or inter-provincial and 2) intra-provincial. Among the 13,823 VAS companies, 808 are national or inter-provincial players while 13,015 are providing VAS locally. Among the VAS companies, 60% are private, 25% state-owned, about 10% have foreign investment, and 5% fall into the "all others" category.

The revenue generated by all the VAS companies in 2004 totaled USD 7.5 billion, or 11% of the revenue generated by the whole telecom service industry

in the year. With revenue of USD 4.5 billion, the national VAS companies are leading the market.

There are 2,826 mobile VAS companies — 401 are national, 2,425 are local. The total revenue earned by these mobile VAS companies in 2004 accounts for USD1.5 billion. Short messages (SMS) are the key revenue generator, accounting for 70% of the total revenue generated by mobile VAS companies in the year. In 2004, Chinese mobile phones sent out 220 billion SMSs. Following SMS are interactive voice response (IVR) with 12%; WAP 10%; MMS 6%; other 2%. [1]

Market Trends

China's telecom industry has been developing in a leapfrog style over the past 25 years since China adopted the policy of reform and opening to the outside world. In 1979, China only had 2 million telephone subscribers. By 1992, the number of telephone subscribers was up to 10 million. Only 6 years later, that number jumped to 100 million. By 2000, China had 200 million subscribers. From 2000-2005, 100 million new telephone users were added to the already large telephone subscriber base.[2] At the same time, the number of Chinese basic telecom service providers increased from one to six. One of the remarkable achievements of China's reform is that the voice of the general public has been heard. Chinese people demand better and more affordable telecom services, effectively breaking the pre-existing monopoly.

Nevertheless, as Table –2 below shows, the revenue growth rate of Chinese telecom carriers as a whole is declining though absolute revenue has increased steadily over the past five years.

Table –2 China's Telecom Service Industry Development[3]

Year	Revenue (in billion RMB)	Growth rate
2001	357.2	16.1
2002	411.5	14.4
2003	461.0	13.9
2004	518.7	12.6
2005	575.7	11

As the total number of telephone users (fixed and mobile) in China reached 700 million with a fixed-line penetration rate at 26% and mobile communications penetration rate at 28% as of the end of June 2005[4], the future development of China's telecom service industry will have the following trends:

1. Telecom service providers will continue their efforts to recruit more users. With a population of 1.3 billion people, there is still potential for growth as

[1] Dr. Chen Jinqiao released this information during a speech in Beijing on July 21, 2005

[2] Source: XinhuaNet, July 20, 2005

[3] Source: website of the Ministry of Information Industry and the 2005 figure is an estimate made by CS Beijing.

[4] MII report on the performance by the telecom service industry in the 1st half of 2005

about half the population is either not served or under served. Furthermore, the development is unbalanced. In urban areas, one family may have 1-3 home phones and 2-3 cell phones while 15% of the villages in China do not have telephone service at all. Potential telephone users are low-incomers in the urban area and the vast rural population. Among the 386 million mobile phone users, approximately 20% are prepaid users who are low-incomers and not frequent users of cell phones. Turning the prepaid users to regular users could bring the mobile carriers remarkable revenues

2. Geographically, the eastern and coastal areas are major revenue generators for the telecom carriers while the middle and western regions are catching up slowly due to unbalanced economic development.[5] Telephone users in the eastern regions demand more VAS, which may bring more income for service providers while the middle and western regions are places where revenues are more dependent on attracting new subscribers.

3. With an already large telephone subscriber base and increased competition, Chinese telecom carriers have turned to VAS for revenues. Fixed-line operators have increased their promotional efforts to encourage the use of their IP access at a lower price than regular phone service and the use of broadband by waiving installation fee for ADSL modems. Call records, voicemail, on-line gaming, distance education, telemedicine, e-commerce, e-government, etc. are becoming more accepted by the public. Elementary school pupils are encouraged to do homework on-line.

   The mobile phone carriers are even more aggressive in their efforts to attract and retain subscribers. They have developed various service packages from which users can choose. User clubs are established to encourage user loyalty- very similar to the Frequent Flyer Programs developed by most airliners. Points are accumulated by the air minutes. Talk for a free cell phone or for discounted shopping and food and entertainment. Ring tones, music and cartoons, mobile games and videos, and mobile banking are becoming more and more popular in the market. VAS is growing at much faster pace than other traditional services, though it only makes a small portion in the total revenues of telecom carriers.[6]

4. A market for all players. A multiple partnership value chain has evolved in the telecom service market in China. In 2000, the leading mobile communications service provider, China Mobile, launched its Monternet by putting together mobile service and Internet based services. China Mobile established partnerships with leading ISPs and ICPs like Sina.com and Sohu.com and many others to allow mobile phone users to downed interesting SMSs from Internet portals. China Unicom has a similar

[5] Eastern region includes 10 provinces and cities: Beijing, Tianjin, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan; middle region consists of 9 provinces and cities: Hebei, Shanxi, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei and Hunan; the western region has 12 provinces and cities: Inner Mongolia, Guangxi, Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang.

[6] 2004 Annual reports by China Telecom, China Netcom, China Mobile and China Unicom.

business model. CS Beijing learned from both China Mobile and China Unicom that the two carriers provide the infrastructure while the ISPs and ICPs provide content under a 15/85 revenue sharing model. The carriers get 15 percent while the ISPs and ICPs get 85 percent of the revenue generated from downloading ring tones, color ring tones, music, cartoons, photos, and SMSs from the Internet.

The mobile and fixed line carriers (by using Xiaolingtong or PHS phones[7]) also partner with TV channels, radio stations and organizers of entertainment and sports activities to encourage users to interact with one another and the organizers by using SMSs. One very successful case is the "Super Girls" singing contest organized by Hunan TV Service. The fans of a specific girl in the contest have to send SMSs to demonstrate their support. The number of supporting SMSs is critical for a specific girl to stay in the next round of the contest. It was reported that the event has helped the organizer earn several million RMB from SMSs. Other cases like auction and quiz events are also successful. The price per SMS varies from 0.1 RMB to 2 RMB. In cases like sending a SMS to win a cell phone, a laptop and camera, the price can be 2 RMB per SMS.

5. The convergence of voice, data and video with the deployment of the 3G mobile communication networks in China will create more opportunities for telecom services and VAS in particular. Mobile television, mobile gaming and IPTV show momentum of potential growth in the market.

Government Regulator

MII is the leading government regulator in the telecom service market in China. The Telecommunications Administration Bureau under MII takes the major responsibility in regulating the telecom service market. China's National Development and Reform Commission (NDRC) also plays an important role in determining the telephone tariffs and service prices. In order to better regulate the competition, NDRC and MII jointly issued a regulation to change the price setting process for telecom services. Starting in October 2005, the Chinese government will not set prices for each telecom service, but rather, will set ceiling prices for all telecom services and allow telecom carriers to set their own service prices. They are fine as long as they do not go beyond the ceiling prices. Local telecom service providers set their own prices based on their local conditions. However, they have to get approval from their company headquarters and file records with the provincial telecom administrations. [8]

Regulatory Environment

China does not yet have a Telecommunications Law in place. MII is responsible for drafting the Law. In 2004, MII submitted its draft to the State Council for review and editing. The Legislative Affairs Office (LAO) of the State Council is currently reviewing the draft on behalf of the State Council. LAO officials have visited several countries including the United States to conduct research on the

[7] Xiaolingtong is a handheld communications terminal based on PHS technology, but with limited mobility.
[8] Source: MII's website: www.mii.gov.cn

telecom laws of other countries. LAO allowed limited comment from local telecom carriers and selected domestic and international telecom vendors to solicit comments on the draft law. However, the draft telecom law has not been issued for general public comment up to now.

In 2000, MII released a document titled "Regulations on Telecommunications of the People's Republic of China." This document is generally regarded as a precursor to what will become China's telecommunications law. The "Regulations" have been implemented and their effects are being carefully monitored to determine whether any fine-tuning will be necessary before they are submitted to the State Council for adoption as law.

The regulations discuss the lines of responsibility and authority for managing China's telecommunications sector, define basic and VAS, and outline the rules for business licensing, interconnection requirements, tariffs and resource allocation.

The regulations also specify the obligations of telecom service providers to their customers and the public interest, the infrastructure and facilities build-out requirements, and the rules governing network protection, public safety, fair competition and privacy. Penalties for violations of the regulations are also spelled out.

Another important document governing the telecom service market in China is the Regulations on Foreign-Invested Telecommunications Enterprises (FITE) issued by the State Council in 2001. China's WTO commitments are also important information for those who are interested in China's telecom service market. More details will be discussed in the "Market Access " chapter.

Competition

With six telecom carriers, there is growing internal competition in China's telecom service market. There are no foreign companies offering basic telecom services in China (see "Market Access" sector for more information). Although there are only two licensed mobile carriers in the market, the fixed-line operators, China Telecom and China Netcom, are fighting against mobile carriers with their Xiaolingtong. With limited mobility (usually mobility within one city) and the ability to send SMSs, Xiaolingtong helps both China Telecom and China Netcom to attract low-income users in the urban areas. The total number of Xiaolingtong users reached 81 million as of the end of June 2005, which is 22 percent of the 368 million mobile phone users.

Telecom carriers are trying to differentiate themselves from each other. For instance, China Netcom is trying to become a leading broadband service provider while playing a dominant role in northern China. China Unicom plays its CDMA card with broadband and better communication security and faster Internet access. China Mobile has broader network coverage and more VAS for VIP users such as helping users make appointments with hospitals, etc. China Telecom provides quick Internet access using its existing large wire line network. ChinaSat does not have a competitor in the market as it is the only company that owns and operates satellite-based telecom services. With this increased domestic competition comes greater opportunity for U.S. companies to provide

product offerings to any of the operators to increase their overall product/service package.

China Mobile and China Telecom are the two leading players in the market while others are trying to catch up. Table –3 below illustrates the number of subscribers, revenues and market share of each telecom carrier in China's telecom market.

Table – 3 Breakdown of China's telecom service market 2004[9]

Company	Number of subscribers (in millions)	Revenue (US$ billions)	Market share by revenue %
China telecom	187	15.202	26
China Mobile	204	24.048	41
China Unicom	112	9.916	17
China Netcom	80	8.115	14
China Tietong	12	1.336	2

Market Access

China's accession to the WTO in 2001 has made it officially possible for foreign companies to participate in the rapidly growing telecom service market in China. At present, 17 foreign companies have applied to MII for VAS licenses but only four applications have been approved by MII, according to Dr. Chen Jinqiao, Director of the Institute of Telecommunication Policy of the China Academy of Telecommunications Research. No foreign entity, however, has entered the basic telecom service sector due to prohibitive regulations. Nevertheless, leading international telecom operators have invested in Chinese telecom carriers under the name of strategic partnership. For instance, a British company has established profit-sharing relationship with China Mobile to provide mobile conference call service.

China's WTO Commitments[10]

China has divided its telecommunications services sector into four categories: value-added services, paging services, mobile services, and other basic services. Each category, except mobile communications, has a 3-stage implementation plan. Mobile communications has a 4- stage implementation plan. Each stage allows an increased level of foreign investment and/or opens a larger geographic area to foreign participation.

The following paragraphs summarize these commitments:

"For value-added services (electronic mail, voice mail, on line information and database retrieval, electronic data interchange, enhanced facsimile, code and

[9] Source: 2004 annual reports by China Telecom, China Mobile, China Unicom and China Netcom and company profile of China Tie tong at www.chinatietong.com .AS China Satellite is specialized in providing transponders and satellite-based internet access service, it is not included here.

[10] The information in this part is from "Export ITChina" a report by the International Trade Administration of U.S. Department of Commerce in 2003.

protocol conversion, on-line information and data processing, including transaction processing) and paging services:

Phase	Date of effect	Foreign investment limit	Applicable to the geographic areas of:
1	Upon accession	30 percent	Beijing, Shanghai, and Guangzhou
2	One year after accession	49 percent	Above, plus 14 additional cities*
3	Two years after accession	50 percent	All of China

For mobile voice and data services (analog and digital cellular services, personal communications services):

Phase	Date of Effect	Foreign Investment Limit	Applicable to the geographic areas of
1	Upon accession	30 percent	Beijing, Shanghai, and Guangzhou
2	One year after accession	35 percent	Above, plus 14 additional cities*
3	Three years after accession	49 percent	Same as above
4	Five years after accession	49 percent	All of China

For domestic basic services (voice services, packet switched data transmission services, circuit switched data transmission services, and facsimile services) and international basic services (voice services, packet switched data services, circuit switched data services, facsimile services, and international closed user group voice and data services):

Phase	Date of Effect	Foreign Investment Limit	Applicable to the geographic areas of
1	Three years after accession	25 percent	Beijing, Shanghai, and Guangzhou
2	Five years after accession	35 percent	Above, plus 14 additional cities*
3	Six years after accession	49 percent	All of China

In addition to permitting foreign investment in its telecommunications services sector, China also agreed to undertake the pro-competitive regulatory obligations contained in the Reference Paper of the WTO Agreement on Basic Telecommunications Services. The Reference Paper includes obligations to establish an independent regulator, define interconnection rights, and prohibit anti-competitive practices.

Foreign Investment Regulations

As mentioned in the 'Regulatory Environment' section above, in December 200, China's State Council issued Regulations on FITE, which became effective January 1, 2002. The Regulations reflected China's commitment to open its telecommunications services sector to foreign investment. These regulations define the terms and conditions for foreign participation in China's telecommunications services sector.

The Regulations divide FITEs into two categories: those that provide basic telecom services and those that engage in value-added services. Each of these categories is further subdivided into two further categories: those that provide services on a national or inter-provincial basis and those that provide intra-provincial basis.

Each of these four types of FITEs are required to meet specific requirements in terms of registered capital, ranging from 1 Million RMB for an intra-provincial value-added services provider to 2 Billion RMB for a nationwide or intra-provincial/autonomous regional/municipal basic telecom service provider.

The regulations also outline specific requirements for the principal Chinese and foreign entities in the FITE. Both the principal Chinese and foreign investors in a basic telecom services FITE must "have capital and professionals necessary for the services provided. Foreign investors in either basic or value-added FITEs are required to "have a record of sound performance and operating experience in providing" basic or value-added services.

The foreign investment regulations for telecom services clearly illustrate the old maxim that "the devil is in the details." For example, China's WTO offer on basic services simply states that foreign companies will ultimately be allowed to invest up to 49 percent in a Chinese telecom company providing infrastructure-based services, but the foreign investment regulations stipulate that the joint venture must have 2 billion RMB in registered capital. The regulation requiring that foreign investors "have a record of sound performance and operating experience in providing" basic or value-added services is not defined, and raises questions as to what constitutes a "record of sound performance and operating experience".

Knowing the Reality of the Market

Contradictory opinions on regulation or deregulation, opening and controlling of new telecom services like e-commerce, internet-based services among Chinese government agencies oftentimes lead to different interpretation of the regulations that falls far behind the development of the industry. This practice leaves business people with uncertainties and more risks. A good example is the

Chinese government's cleaning-up of foreign investment in China Unicom under the notorious Chinese-Chinese-Foreign (CCF) business model in the end of the last century.

It is advised that foreign companies take extra caution and practice acute due diligence when looking into opportunities in a certain field where there are no apparent rules available in China. In most cases, you will be fine. One of the reasons for this is that there are other interests in China. Chinese companies need foreign investment, technology and management expertise to develop their business. Based on anecdotal evidence, local companies with a good knowledge of Chinese culture and the bureaucratic system have found ways to 'reinterpret' government regulations that are not in their favor. However, it is always a good idea to seek legal guidance when wading into these opaque waters.

Many foreign companies manage to enter into Internet based services as ISPs and ICPs and call centers by teaming up with local companies even before China's accession to the WTO. There are risks ahead, of course. There are risks in every business.

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